RECEIVED
CENTRAL FAX CENTER
JUL 09 2007

67,108-022
Capece 2-11

REMARKS

Applicant thanks the Examiner for the remarks and analysis provided in the most recent office action. Claim 1 is amended. New claims 14-20 are added. Applicant respectfully requests reconsideration of this application.

Applicant respectfully traverses the rejection under 35 U.S.C. §101. Claim 1 recites statutory subject matter. The useful, concrete and tangible result of claim 1 is the data set that provides future time information. Such a result has been considered to be useful, concrete and tangible by the Court of Appeals for the Federal Circuit (CAFC). The interim guidelines are not capable of overruling the reasoning of the CAFC and therefore cannot be used as a basis for rejecting claim 1.

The CAFC has provided guidance on what constitutes a useful, concrete and tangible result. In *State Street Bank & Trust* v *Signature Financial Group, Inc.*, 47 USPQ 2d 1596 (Fed. Cir. 1998), the CAFC provided three example situations where information or a determined value constitutes a useful, concrete and tangible result. When reaching the decision in the *State Street* case, the CAFC stated:

> We hold that the transformation of data, representing discrete dollar amounts, by a machine through a series of mathematical calculations into a final share price, constitutes a practical application of a mathematical algorithm, formula, or calculation, because it produces "a useful, concrete and tangible result" -- a final share price momentarily fixed for recording and reporting purposes.

State Street, 47 USPQ 2d at 1601.

The CAFC also mentioned two earlier cases stating:

In *Alappat*, we held that data, transformed by a machine through a series of

> mathematical calculations to produce a smooth wave form display on a rasterizer monitor, constituted a practical application of an abstract idea (a mathematical algorithm, formula or calculation), because it produced "a useful, concrete and tangible result" – the smooth wave form.
>
> Similarly in *Arrhythmia*..., we held that the transformation of electrocardiograph signals from a patient's heartbeat by a machine through a series of mathematical calculations constituted a practical application of an abstract idea (a mathematical algorithm, formula, or calculation), because it corresponded to a useful, concrete or tangible thing, the condition of a patient's heart.

State Street at 1601.

Likewise, the generated data set recited in Applicant's claim 1 constitutes a useful, concrete and tangible result and, therefore, constitutes statutory subject matter. To the extent that the Examiner would limit the application of the *State Street* holding to a process performed by a machine, Claim 1 satisfies that test. Claim 1 recites the neural network that necessarily must be part of a "machine" and therefore, Claim 1 recites statutory subject matter.

Additionally, the method of claim 1 involves a physical transformation of data. An input to the neural network (time information) is transformed into the data set recited in the claim. The rejection under 35 U.S.C. §101 can be withdrawn.

Applicant respectfully traverses the rejection under 35 U.S.C. §103 based upon *Grohn* combined with what the Examiner calls "Admitted Prior Art." There is no prima facie case of obviousness because the proposed combination cannot be made. MPEP 2143.01 (V) and (VI) explain that a proposed combination cannot be made and does not establish a prima facie case of obviousness if the proposed combination would render the cited reference unsatisfactory for its intended purpose or would change the principle of operation of the cited reference. Here, *Grohn* cannot possibly be modified in the manner proposed by the Examiner without rendering it

unsatisfactory for its intended purpose and changing the principle of operation of that reference. Therefore, there is no prima facie case of obviousness.

If one were to substitute in the "known techniques for generating a data set of coefficients that effectively provide a curve fitting function that provides predicted or future time information base upon some initial time input," in place of *Grohn's* RH_{uc} clock signal (Col. 5, lines 9-14), that would require completely changing *Grohn's* principle of operation in violation of MPEP 2143.01(VI). *Grohn* uses a radio head uplink signal clock signal RH_{uc} in place of a downlink clock signal CLK_{rcf} when a downlink between a CRI 200 and radio head 300 is not available. There is no way to incorporate the "Admitted Prior Art" in place of the uplink clock signal RHuc without completely changing *Grohn's* principle of operation and rendering it unsatisfactory for its intended purpose. For example, it is not possible to achieve an uplink clock signal from the "Admitted Prior Art" so that *Grohn's* technique will no longer work as intended because it relies upon such a signal. A clock signal as used in *Grohn* is not of a clock for telling time but is a clock signal as typically used by an oscillator or a phase locked loop as mentioned in *Grohn* (Col. 3, lines 1-25). If one were to replace such a clock signal with a data set for providing future time information, that would render Grohn incapable of operating as intended or, at best, would completely change the principle of operation. The combination cannot be made and there is no prima facie case of obviousness.

The proposed addition of the teachings of the *Telia* reference or the *Bullock IEEE* reference do not establish a *prima facie* case of obviousness, either. The teachings of these references do not fix the problem with the proposed base modification of *Grohn*.

Additionally, there is no benefit to making either addition because *Grohn* uses a clock signal that has no possible relationship with the portions of the *Telia or Bullock* references that the

RECEIVED
CENTRAL FAX CENTER
JUL 09 2007

67,108-022
Capece 2-11

Examiner proposes to add to the improper combination of *Grohn* and the "Admitted Prior Art." Where a proposed combination of references does not provide any benefit to the arrangement in the primary reference, the combination cannot be made.

As there is no *prima facie* case of obviousness against any of Applicant's claims, this case is in condition for allowance.

Respectfully submitted,

CARLSON, GASKEY & OLDS, P.C.

July 9, 2007
Date

David J. Gaskey
Registration No. 37,139
400 W. Maple, Suite 350
Birmingham, MI 48009
(248) 988-8360

CERTIFICATE OF FACSIMILE

I hereby certify that this Response, relative to Application Serial No. 10/686,451, is being facsimile transmitted to the Patent and Trademark Office (Fax No. (571) 273-8300) on July 9, 2007.

David Gaskey